

MISSOURI. Conservationist

VOLUME 76, ISSUE 2, FEBRUARY 2015 • SERVING NATURE & YOU



[NOTE TO OUR READERS]

Conservation Dollars Support the Economy

Conservation represents one of Missouri's bright stars in the state's economy. Hunting, fishing, wildlife watching, and Missouri forest products represent an economic force as big as Missouri's outdoors.

Conservation pays its way and is good for Missouri's jobs, economy, and quality of life.

Each year Missouri benefits from:

- **\$4 BILLION** in economic impacts from fish- and wildlife-related recreation
- **\$8 BILLION** in economic impacts from the forest products industry
- **99,000** jobs supported by fish- and wildlife-related recreation and the forest products industry
- **\$507 MILLION** of state and local taxes generated by fish- and wildlife-related recreation spending and the forest products industry

All of this economic activity is from less than 1 percent of Missouri's state budget.

The annual budget of your conservation department is less than 1 percent of the total state of Missouri government budget and the Department of Conservation receives no general revenue from the state budget.

The conservation sales tax more than pays for itself. The $\frac{1}{2}$ of 1 percent sales tax returns almost five times the dollars in state and local taxes alone. In addition, it helps generate billions of dollars in revenue to support Missouri jobs and businesses.

*Nationwide, hunters and anglers:

- Are a **\$76 BILLION** economic force
- Are a **\$192 BILLION** economic "ripple effect" created by the combined spending of hunters and anglers
- Generate **\$25 BILLION** each year in federal, state, and local taxes throughout the nation.
- Based on average salaries, hunters generate taxes that are equivalent to **527,900 police officers**, or **454,000 firefighters**, or **476,870 teachers**. The sport fishing industry alone supports over **1 million jobs**.

**Congressional Sportsmen's Foundation*

Your hunting and fishing purchases help you enjoy the outdoors, help conserve the outdoors, and help other Americans stay employed! Hunters, anglers, and wildlife watchers are a major force in America's economy.

Across America, hunters and anglers spend more than a billion dollars on licenses, stamps, tags, and permits, which translates into conservation dollars at the state level. If a single

corporation grossed as much as hunters and anglers spend, it would be among America's 20 largest corporations.

Nationwide, hunters and anglers have historically been, and continue to be, the largest contributors to government wildlife conservation programs. Through excise taxes and license revenues, they have contributed more than \$10 billion to conservation through the years. In Missouri, citizens taxed themselves to improve and sustain a conservation program that creates a state that is a great place to live, work, fish, hunt, view wildlife, and enjoy the outdoors.

Clean water, healthy forests, and abundant fish and wildlife support our lives and lifestyles. Remember the next time you go hunting, fishing, or wildlife watching that not only are you pursuing a passion but you are actively supporting Missouri's and the nation's economy!

Tim Ripperger,
deputy director



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Cover: Frost covers a tree in Columbia, Missouri.

Photograph by Noppadol Paothong.

📷 300–800mm lens • f/8 • 1/160 sec • ISO 400

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WHAT IS IT?

Our photographers have been busy exploring the intricacies of the Missouri outdoors. See if you can guess this month's natural wonder. The answer is revealed on Page 8.



NOPPADOL PAOTHONG

SKELETON TREES

I enjoyed Gladys Richter's article about sycamore trees [November; Page 24]. I live in Elk County, Kansas, and the sycamore is plentiful here. Lots of them along the creeks and rivers and in any ditch that has water during part of the year. Their foliage has been unusually striking this year, and their form and shape always unique. We had a London plane tree in our yard when we lived in Andover, and my kids and grandkids delighted in climbing in its sturdy branches. I enjoy the many varieties of trees we have and the sycamore is a favorite.

Lula "Billy" Harrison, via email

HOOKED ON OLD LURES

Great article and photographs regarding old lures [December; Page 10]. I was especially taken with the quantity of lures shown, as I have recently resurrected a number of my late father's lures and now have them displayed in our family

room for our grandchildren to see. Thanks to your article, I have gleaned much additional information about his lures. Dad and mom took my brother and me to lakes and rivers all over Missouri showing us the natural beauty of our state. Thanks so very much.

Tom Stevener, Innsbrook

Having acquired my dad's old tackle box filled with old fishing lures, some of which I have used for more than 30 years, I am fascinated by Kevin Richard's article. I don't read much, but I keep my *Missouri Conservationist* in a strategic location, and I read many of the articles several times.

Jim Beasley, Table Rock Lake

AFTER THE HARVEST

Us old-timers would never ask the question of what to do with game "waste" because there isn't any! [November; Page 10]. For fish, run everything left over through a meat grinder or

a heavy-duty blender. Dig a 2-foot deep hole in your mulch pile and put it in with all the potato peels, etc. from around the house. For deer bones, cut them or crack them to expose the marrow and boil them for an hour. Use tongs to take them out of the pot, and use a small knife to scrape off any remaining soft tissue. You have made soup stock. Put the bones in your fireplace or camp fire to burn them, then crush them up to go into the mulch pile, also. Your garden will love it next spring. Do not add anything to a landfill that can be reused!

Chuck Dohogne, via email

TRAPPING TERMINOLOGY

I enjoyed the article in the January issue, *The Lure of Trapping*. It was a well-written and informative article explaining how trapping gets you engaged with nature, how it's important for the betterment of other wildlife, and also tells the different reasons why people trap. However, in this article where the different traps are explained, one trap was described as a "leghold" trap. This terminology gives a wrong impression on the traps that we use. The correct terminology would be a "foothold" trap, as the trap is designed to capture the animal by the foot, right across the pad where the animal would be comfortable while being restrained in the trap. Other than that, it was a great article, and I commend Jim Low for writing it. It informs the public of how trapping really is and destroys the myths that many people have about trapping.

Robbie Page, New Franklin

Editor's Note: You are correct, we should have changed that reference to the more-accurate term foothold trap. Thank you for helping us make this distinction.

ARMY TO AGENT

I'm in the U.S. Army, currently in South Korea. My dream job when I get out is to become a Missouri conservation agent, but I have questions.

Mason Moore, via Facebook

Conservation Department: Visit our careers pages at mdc.mo.gov/node/8051 and check out our video on being an agent at mdc.mo.gov/node/8056.



Reader Photo

SNOW DRIFT

Jill Payne, of Miami, Missouri, took this photo of snow geese in a field of corn stubble near Grand Pass Conservation Area. "I have a huge passion for wildlife photography, waterfowl being one of my favorites," said Payne. "I spend a lot of hours as an amateur wildlife photographer taking pictures through every season." Payne said she and her family love the outdoors and spend the majority of their time outside, camping, fishing, and participating in other activities. "I spend a lot of my time in the countryside, near the river where we grew up," she said, "but, whether it's close to home or visiting miles away, anywhere I can be outside with a camera experiencing nature through a camera lens, I enjoy every minute of it."



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SUBSCRIPTIONS

Phone: 573-522-4115, ext. 3856 or 3249

Address: Circulation, PO Box 180, Jefferson City 65102-0180

Email: Subscriptions@mdc.mo.gov

Conservationist online services: Subscribe to the magazine, update your mailing address, or sign up to receive an email when the latest issue is available online at mdc.mo.gov/node/9087

Cost of subscriptions: Free to Missouri households

Out of State \$7 per year

Out of Country \$10 per year

Please allow 6-8 weeks for delivery of your first issue.

OMBUDSMAN QUESTIONS

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READER PHOTO SUBMISSIONS

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The Missouri Conservationist (ISSN 0026-6515) is the official monthly publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: PO Box 180, Jefferson City, MO 65102.) Subscription free to adult Missouri residents; out of state \$7 per year; out of country \$10 per year. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Missouri, and at additional entry offices. Postmaster: Send correspondence to Circulation, PO Box 180, Jefferson City, MO 65102-0180. Phone: 573-522-4115, ext. 3856 or 3249. Copyright © 2015 by the Conservation Commission of the State of Missouri.

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Printed with soy ink



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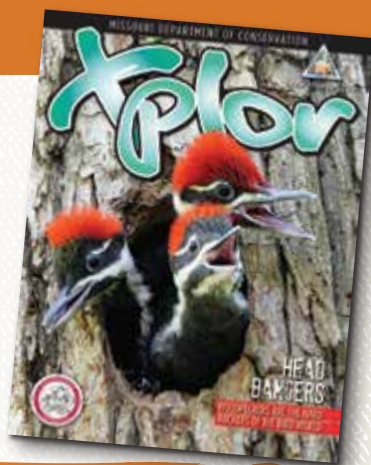
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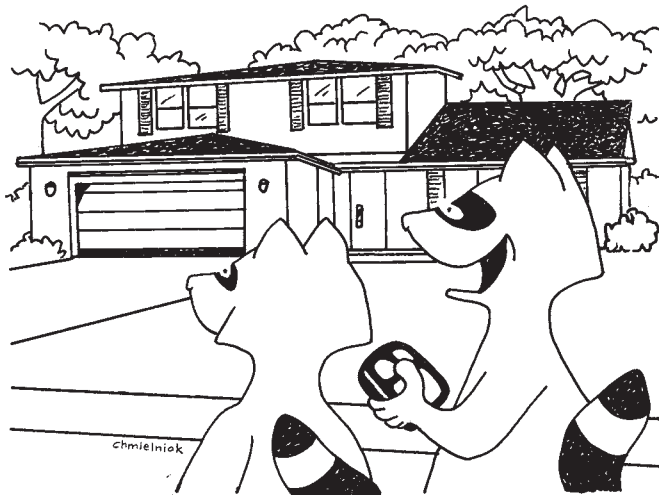
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"No need to wait for them to leave the garage door open.
I grabbed the remote last time."

United States Postal Service Statement of Ownership, Management, and Circulation

(PS form 3526, July 2014)

Published annually in the February edition of this magazine
as required by the United States Postal Service.

- 1) Publication Title: *Missouri Conservationist*
- 2) Publication Number: 354-960
- 3) Filing Date: 10/27/14
- 4) Issue Frequency: Monthly
- 5) Number of Issues Published Annually: 12
- 6) Annual Subscription Price: Free In-State
- 7) Complete Mailing Address of Known Office of Publication: Missouri Department of Conservation; PO Box 180; Jefferson City, MO 65102-0180; Contact Person: Shawn Cunningham; Telephone: 573-522-4115
- 8) Complete Mailing Address of Headquarters or General Business Office of Publisher: Same as above
- 9) Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor: Publisher: Missouri Department of Conservation; PO Box 180; Jefferson City, MO 65102-0180; Publication Manager: Nichole LeClair-Terrill; PO Box 180; Jefferson City, MO, 65102-0180
- 10) Owner: Missouri Department Of Conservation (Shawn Cunningham); PO Box 180; Jefferson City, MO 65102-0180
- 11) Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities: None
- 12) Tax Status: The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes has not changed during preceding 12 months.
- 14) Issue Date for Circulation Data Below: August 2014
- 15) Extent and Nature of Circulation
 - a. Total Number of Copies (Net press run):595,757
 - b. Paid Circulation (By Mail and Outside the Mail):
 - (1) Mailed Outside-County Paid Subscriptions Stated on PS Form 3541:0
 - (2) Mailed In-County Paid Subscriptions Stated on PS Form 3541:0
 - (3) Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS:0
 - (4) Paid Distribution by Other Classes of Mail Through the USPS:8,321
 - c. Total Paid Distribution:8,321
 - d. Free or Nominal Rate Distribution (By Mail and Outside the Mail):
 - (1) Free or Nominal Rate Outside-County Copies Included on PS Form 3541:587,436
 - (2) Free or Nominal Rate In-County Copies Included on PS Form 3541:0
 - (3) Free or Nominal Rate Copies Mailed at Other Classes Through the USPS:0
 - (4) Free or Nominal Rate Distribution Outside the Mail (Carriers or other means):0
 - e. Total Free or Nominal Rate Distribution:587,436
 - f. Total Distribution:595,757
 - g. Copies not Distributed:2,000
 - h. Total:597,757
 - i. Percent Paid:1.4%
16. Electronic Copy Circulation
 - a. Paid Electronic Copies:0
 - b. Total Paid Print Copies:8,321
 - c. Total Print Distribution:595,757
 - d. Percent Paid:1.4%
18. Signature and Title of Editor, Publisher, Business Manager, or Owner: I certify that all information furnished on this form is true and complete. Shawn Cunningham, Distribution Manager, 10/24/14

HUNTING & FISHING CALENDAR

FISHING	OPEN	CLOSE
Black Bass from Ozark Streams	05/24/14	02/28/15
Paddlefish	03/15/15	04/30/15
Trout Parks		
Catch-and-Release	11/14/14	02/09/15
Catch-and-Keep	03/01/15	10/31/15
HUNTING	OPEN	CLOSE
Coyote	05/12/14	03/31/15
Crow	11/01/14	03/03/15
Deer		
Firearms		
Urban Portion	10/09/15	10/12/15
Early Youth Portion	10/31/15	11/01/15
November Portion	11/14/15	11/24/15
Antlerless Portion (open areas only)	11/25/15	12/06/15
Alternative Methods Portion	12/19/15	12/29/15
Late Youth Portion	01/02/16	01/03/16
Rabbit	10/01/14	02/15/15
Squirrel	05/24/14	02/15/15
Turkey		
Firearms		
Youth	04/11/15	04/12/15
Spring	04/20/15	05/10/15
Fall	10/01/15	10/31/15
Waterfowl	see the <i>Waterfowl Hunting Digest</i> or mdc.mo.gov/node/3830	
TRAPPING	OPEN	CLOSE
Beaver and Nutria	11/15/14	03/31/15
Otters and Muskrats	11/15/14	02/20/15

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, *The Spring Turkey Hunting Regulations and Information*, *the Fall Deer and Turkey Hunting Regulations and Information*, *the Waterfowl Hunting Digest*, and *the Migratory Bird Hunting Digest*. For more information, visit mdc.mo.gov/node/130 or permit vendors.

Operation Game Thief

Help put game thieves out of business. If you see a possible violation in progress, call your county conservation agent immediately or dial the toll-free number below:

1-800-392-1111

All information is kept in strict confidence. Desirable information includes names of violators, vehicle description and license number, as well as the violation location.

ASK THE Ombudsman



Q. I have a 3-year-old and 6-year-old, and we are getting cabin fever from being stuck inside so much this winter. Any suggestions on winter activities for the whole family?

The Conservation Department has 14 nature and interpretive centers around the state to help you and your family connect with nature, including during the cold winter months. You can learn about wildlife through interesting indoor exhibits or attend an event with hands-on activities or crafts. Some fun events this February include mighty mammals, backyard birds, maple sugaring, nature nuts, and rabbits and rodents. Winter is also a great time for hiking, including on the many trails around the nature centers, but be sure to bundle up.

Q. When and how can I renew my permits for the year?

Many hunting and fishing permits

expire at the end of February, including 2014 permits for small game, fishing, trout fishing, and combination hunting and fishing permits. The Missouri Department of Conservation reminds hunters and anglers that now is the time to renew permits for 2015. Buying permits is easy, with three options. First is the traditional method of purchasing from a local permit vendor, such as a sporting goods or convenience store or bait shop. The second option is visiting mdc.mo.gov and clicking on "Buy Permits." The third option is to purchase by calling 800-392-4115 (allow up to 10 days for mail delivery with this option). Commercial permits and lifetime permits require

an application. You can download a copy at mdc.mo.gov/node/123, or call Conservation Headquarters at 573-522-4115 to have one mailed to you.

Q. I just turned 65 years old and my neighbor mentioned I no longer need a hunting and fishing permit. Is that true?

Missouri residents 65 years of age or older are exempt from needing a small-game hunting permit or a fishing permit. You must carry proof of age and residence with you while hunting or fishing, such as a Missouri driver's license. However, depending on the type of hunting and fishing that you do, there may be other permits that you still must purchase, such as deer and turkey tags, migratory bird permit, trout permit, and daily trout tag at trout parks. More information can be found online at mdc.mo.gov/permits.

Q. We want to harvest timber on our family farm for the first time. How do we go about this?

Remember to "Call Before You Cut" to get professional help from Conservation Department foresters and private consulting foresters. The free service can help maximize your timber income and save on taxes while also increasing the quality, health, and value of your land now and for future generations. We can help you determine if a timber harvest is right for your situation and help you locate a logger for the job. For more information and to receive a free Call Before You Cut packet, call 877-564-7483, or visit callb4ucut.com.

Address: PO Box 180
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Discover Nature — Families Hunting Skills Weekend Workshop

Be part of this first-ever Discover Nature — Families weekend event on March 13–15 at the Windermere Conference Center on Lake of the Ozarks. Families (age 6 and older) interested in learning how to hunt, in finding new ways to spend time outdoors together, and in securing high-protein, low-fat meat for their dinner table will have fun learning the skills they need to accomplish all this.

The workshop will be conducted in a beautiful lakeside setting, and sessions are taught by professional instructors skilled in providing a safe and family-friendly environment. Saturday and Sunday, families will rotate through three hands-on skills sessions: Introduction to Firearms; Beginning Archery; and Basic Hunting.

To qualify for the workshop, family members who are age 11 and older must complete the Knowledge part of hunter education certification. This first part of hunter education certification may be completed online, through self-study with the student book, or by registering for and attending a four-hour Knowledge Session. For details on how to complete the Knowledge part, go to mdc.mo.gov/node/3722. Friday afternoon, family members will have an opportunity to take the four-hour Skills Session to complete their Missouri hunter education certification course.

The workshop is free to all registered participants, but families are responsible for making arrangements for their own lodging and meals through Windermere Conference Center. There are several options for lodging, including Lakeview Lodge, motel, family cabins, and camping. Contact Windermere at 573-346-5200 or 1-800-346-2215 for details. Visit their website at windermereusa.org.

For more information, visit mdc.mo.gov/node/29866. —Kevin Lohraff

Families interested in finding new ways to spend time outdoors together can register for the Discover Nature — Families weekend workshop March 13–15.

Busch Shooting Range Begins Major Renovation

The Conservation Department's August A. Busch Memorial Conservation Area Shooting Range and Outdoor Education Center in St. Charles closed its doors at the end of 2014 to make way for construction of an expanded, state-of-the-art shooting range on the current property.

The new range will incorporate the most current national shooting range design standards, including an increased number of shooting stations, new classroom facilities, and improvements for user convenience and to reduce waiting times. The entire project is expected to take 24–30 months, depending on construction and weather. It is part of the Department's ongoing commitment to help Missourians improve their outdoor skills and discover nature.

Phase I of construction began in January and included demolition of the current facility, as well as site preparation and grading for the new one. There will also be an extensive lead reclamation effort during this phase. Phase II, which should commence in 2016, will be the construction of the new range. To view an animated fly-through video of the new Busch range, visit mdc.mo.gov/node/29039.

Built in 1975, the shooting range sees more than 40,000 visitors annually, which is the highest number of shooters for all Department ranges in the state. The current facility also offers more than 120 outdoor education programs each year to educate citizens about safely enjoying the outdoors, but it currently has no classroom facilities onsite.

To help citizens stay informed and engaged during the Busch shooting range renovation project, the Department has an online renovation update blog at mdc.mo.gov/node/29307. The blog will include periodic postings and photos documenting all stages of the renovation project, including initial demolition of the old range through final construction and opening of the new facility. It will also offer information on shooting safety, hunter education, events, and other shooting-related opportunities. Citizens can learn about alternative Department shooting ranges to visit during the Busch Range closure at mdc.mo.gov/node/6209.



CONSERVATION COMMISSION ACTIONS

The December Commission meeting featured presentations and discussions regarding wild turkey season recommendations, white-tailed deer management, and the 2013 Conservation Opinion Survey. A summary of actions taken during the Dec. 11–12 meeting for the benefit and protection of forest, fish, and wildlife, and the citizens who enjoy them includes:

» Approved the following seasons:

Turkey

Youth — April 11–12, 2015
Spring — April 20–May 10, 2015
Fall Firearms — Oct. 1–31, 2015

Firearms Deer

Urban Portion — Oct. 9–12, 2015
Early Youth Portion — Oct. 31–Nov. 1, 2015
November Portion — Nov. 14–24, 2015
Antlerless Portion — Nov. 25–Dec. 6, 2015
Alternative Methods Portion — Dec. 19–29, 2015
Late Youth Portion — Jan. 2–3, 2016

- » Approved the advertisement and sale of an estimated 1,064,186 board feet of timber on 506 acres of compartment 21 on Peck Ranch Conservation Area (CA) in Carter County.
- » Approved the advertisement and sale of an estimated 845,838 board feet of timber on 537 acres of compartment 32 on Angeline CA in Shannon County.
- » Approved entering into an agreement with Dake-Wells Architecture, Inc., Springfield, for the development of construction documents and associated services for the construction of the new Shepherd of the Hills Conservation Nature Center, Taney County.
- » Approved amending a previously approved contract with Zoellner Construction Co., Inc., Perryville, for the construction of the Duck Creek CA Greenbrier Tract & Pool 1 Fishing Access in Bollinger and Stoddard counties.
- » Approved the purchase of 152 acres in Sullivan County as an addition to Union Ridge CA.
- » Approved the purchase of 191 acres in Jefferson County as an addition to Myron and Sonya Glassberg Family CA.
- » Approved the purchase of two 80-acre tracts in New Madrid County as an addition to Donaldson Point CA.
- » Approved accepting a donation of 88 acres in Clark County as a new CA.
- » Approved relinquishing the Conservation Commission's interest in a 160-acre island in St. Charles County.
- » Approved the sale of .3 acre of Weldon Spring CA in St. Charles County.

The next Conservation Commission meeting is Feb. 19 and 20. For more information, visit mdc.mo.gov/node/3430, or call your regional Conservation office (phone numbers on Page 3).

Calendar Provides Management Tips for Landowners

One challenge for busy landowners who want to increase quail and other grassland wildlife is

keeping track of seasonal management needs. When should you delay haying because chicks are hatching? When do you burn, plant, spray, and disk? The answers to those and many other

[NEWS & EVENTS]

(continued from Page 7)

questions about grassland wildlife management are found in the *Quail and Habitat Management 2015 Calendar* from the Conservation Department.

The wall calendar has daily notes to help landowners meet their wildlife management goals. It lists key events, such as the start of quail nesting season, average dates of first and second brood hatches, and other important milestones in the bobwhite quail's year. There are also reminders

about the best times for management activities, such as planting food plots and the last day for managing fields enrolled in the Conservation Reserve Program.

The calendar has tips for easy habitat creation, ranging from placing old Christmas trees near existing brush piles in January to sowing wildflower seeds atop newly fallen snow in December. Added features for this year include notes about

forming a quail management cooperative, quality deer management, prescribed burning, and additional sources of habitat management information. Wildlife illustrations by Conservation Department artists accompany each monthly page.

To receive a free copy of the calendar, call the nearest Conservation Department office (see Page 3 for phone numbers) and ask to speak to a private land conservationist. —*Jim Low*



WHAT IS IT?

Great Horned Owl | *Bubo virginianus*

Great horned owls are common statewide and found in many habitats, from deep forests to urban areas. These owls are nocturnal, with sharp eyes and keen hearing. They observe quietly from a high perch and swoop down to catch prey. Breeding occurs in late January or early February, following a few months of hooting. They often appropriate old nests of other large birds or squirrels but can also nest in cavities or other places. Clutches average two eggs, incubation lasts about a month, and young tend to stay near their parents until the next breeding season. Usual prey includes mice, insects, crows, snakes, and rabbits, but great horned owls have been known to take barred owls, wild turkeys, and other larger animals, including skunks. —*photograph by Noppadol Paothong*

Don't Dump Aquarium Contents

If your aquarium has become a burden or your fish have grown too large, do not dump the contents in the wild or dispose of them by flushing down a toilet. These methods can encourage the spread of invasive species, which can hurt native fish.

When aquarium contents are dumped into lakes, rivers, or streams, a new species may be introduced into the ecosystem. Aquarium fish are bred to be hardy survivors, and this trait makes it easier for your onetime pet to thrive in an unfamiliar place. Once established, invasive fish are difficult, if not impossible, to control or eradicate. They compete for food and habitat, and they can severely impact native fish.

If you find yourself with an aquarium full of unwanted fish and plants, consider one of the following:

- Give them to a pet shop or another fish owner, or donate them to a school.
- Dispose of plants by putting them in your trash or burning them.
- Humanely dispose of the unwanted fish. A variety of options can be found at fishchannel.com/fish-health/euthanasia.aspx. Contact your local veterinarian for advice.

Don't flush the contents of the aquarium down the toilet, as those pipes may lead to a waterway. —*Tisha Holden*

Greg Stark is Logger of the Year

Scott "Greg" Stark of Birch Tree, Missouri, is Missouri's 2014 Logger of the Year. Resource Forester Gary Gognat nominated Stark based on the quality of his timber harvest operations and best business practices. Stark began his relationship with the Conservation Department performing timber stand improvement (TSI) projects.



Greg Stark, left, and employee Ron Kile accepted the Logger of the Year Award at the summer meeting of the Missouri Forest Products Association in Branson.

"His special work ethic was apparent in his desire to do the best job he was capable of," said Gognat. "He was also interested in the harvest aspect and wanted to attend Professional Timber Harvester training. He started out small and upgraded his equipment as he went along. Not having to focus on production as much allowed Greg to concentrate on the quality side of doing a good job."

Stark took time to train his workers to do top-quality logging. Gognat says Stark's work sites look like little food plots when he is done.

The logger of the year is chosen by a panel of forestry professionals. Criteria for selecting a winner includes good working relationships with landowners and foresters, minimal damage to remaining trees and resources, prevention of soil erosion, aesthetics of the site after harvesting was complete, safe work performance and use of equipment, use of harvested trees, desire to address wildlife management concerns, and use of proper forest management techniques. Candidates must have completed the Professional Timber Harvester's Training Program.

Award recipients receive a framed certificate and a STIHL chainsaw donated by Crader Distributing in Marble Hill. For more information on forests in Missouri and forestry Best Management Practices, visit mdc.mo.gov. —Jim Low

JASON JENSON

DID YOU KNOW?

Missourians care about conserving forests, fish, and wildlife.

Survey Shows Strong Support for Department and Conservation Priorities

In 2013, the University of Missouri conducted a statistically designed Conservation Opinion Survey of a random sample of households from across the state. Results show that most citizens value natural Missouri, trust the Department's efforts, and wish they had more time to enjoy the outdoors.

Interest in protection, enjoyment remain high

- 95 percent report they are interested in Missouri's forests, fish, and wildlife.
- 89 percent agree, "It is important for outdoor places to be protected even if you don't plan to visit the area."
- 86 percent enjoy wildlife around their homes.

Three-quarters agree:

- The Department should make an effort to restore animals that once lived in or that are currently very rare in the state.
- The Department should help private landowners who want to restore native communities of plants and animals.
- The Department should conserve and restore rare and endangered plants.
- The Department of Conservation "is a name I can trust."

Two-thirds agree:

- The Department is doing a good job of enforcing fish and wildlife laws.
- The Department is "excellent" or "good" at providing services for the state of Missouri, themselves, and their family.
- Land should be acquired in Missouri for forest, fish, and wildlife conservation.

There are still obstacles to outdoor participation

- "Not enough time" is the major obstacle keeping Missourians from participating in outdoor activities.

Help Us Communicate Better

The Department is conducting a communications audit to determine the best way to share with Missourians about Conservation priorities and activities happening around the state. Getting feedback and opinions from Missouri conservation enthusiasts is one of the most important things we do, and we hope you will

participate in this audit. Your comments will help determine the best ways for the Missouri Department of Conservation to communicate with Missouri residents. Go to talktoMDC.com to give us your feedback. This link will only be active for a limited time, so please get your responses in early.



THE THRILL OF HUNTING *Cottontails*

There is no better way to spend a cool, crisp winter day than chasing bunnies



Rabbit hunting
requires a Small Game
Hunting Permit.

BY RODNEY VAUGHN
PHOTOGRAPHS BY DAVID STONNER

"Hunt 'em up! Hunt 'em up! Get those rabbits!"

We cheer on the beagles as they worm through the thickets, nosing out the scent of those rascally rabbits. The sound of yodeling hounds on the hunt is music to my ears.

I had not owned beagles or gone rabbit hunting in years when my wife came home with a full-blooded beagle puppy named Jed. I started training him in the yard, and in six months he was running rabbits. That was eight years ago. Since then, we've added another beagle named Ellie to our family, and we hunt several conservation areas here in the Southeast Region.

A favorite rabbit hunting spot is Crowleys Ridge Conservation Area in Stoddard County. I have a unique understanding of this area's shrubby habitat because it's also where I work. As a wildlife resource assistant, I work under the guidance of the local management biologist. I provide the manpower needed to create the area's wildlife habitat. For nearly seven years, we have worked hard to promote excellent escape cover, brood-rearing habitat, and food sources for quail, grassland birds, rabbits, deer, turkey, and a host of wildlife species on this 1,878-acre area. My typical day consists of prescribed burning, disking, timber stand improvement, edge feathering, and farming — all used to create and maintain early-successional habitats that benefit small game.

Chasing bunnies gives you plenty of exercise. This includes stomping your way through thickets and brush where rabbits hide. In fact, you will find the most rabbits in the densest cover, so make sure to dress for fighting briars! Wearing tough clothing with thick material, like canvas, is a must to protect your skin. Remember that it is also a good idea to wear blaze orange for high visibility in thick cover.

Because it can be hard to see rabbits when they run out of thickets, I recommend hunting with a party of three to four other hunters. Once you've flushed a rabbit, quickly put the dogs near the last place the rabbit was sighted

and then the fun begins! The dogs begin yodeling and barking to let you know they're hot on the rabbit's scent. Now is the time to sit back and enjoy listening to the dogs run, or to visit with fellow hunters. The rabbit may run a quarter mile or more before circling back to the area he started from.

When the rabbit finally makes the turn, you will hear the dogs start to get closer and closer. The rabbit will be running ahead of the dogs, so spread out from the other hunters and be ready. Watch closely and be sure to identify safe shooting lanes around you and your fellow hunters. Once the rabbit appears, be sure to identify your target and beyond it before shooting. Again, this is where blaze orange helps keep hunters visible to each other.

During our family hunts, it has become a tradition to yell "Hasenpfeffer!" when we know the rabbit has been bagged. Hasenpfeffer is a German stew cooked with rabbit meat. But my favorite way to cook rabbit is to braise it until it's tender, then batter and fry it. You can find my recipe at mdc.mo.gov/node/29599. Once we have the rabbit in hand, we let the dogs see it and tell them what a good job they've done. We watch them closely when we do — once old Jed grabbed a rabbit from a friend and escaped with it into a thicket!

Whether we harvest one rabbit or a limit in a day, there is no better way to spend a cool, crisp winter day than chasing bunnies with a good beagle or two. If you want some exercise, fellowship, and fun, rabbit hunting may be your sport. Rabbit hunting requires a Small

Game Hunting Permit. Conservation Department Quail Emphasis Areas are typically good places to start because many have good populations of rabbits. Be sure to check the Department's Conservation Atlas at mdc.mo.gov/node/3333 to find a rabbit hunting area near you. ▲



Rod depends on his beagles to flush rabbits from thick cover.

Rod Vaughn has been a Department of Conservation resource assistant for 17 years. He loves to hunt rabbits with his beagles on weekends and days off during season.



JOIN THE FIGHT

✱ AGAINST ✱

FERAL HOGS

**Southeast Missouri landowners advocate
constant vigilance, hard work, and cooperation**

BY CANDICE DAVIS
PHOTOGRAPHS BY DAVID STONNER





Feral hogs trapped on Clearwater Conservation Area in Reynolds County. Feral hogs spread diseases to people, pets, and livestock, and they must be eradicated in Missouri.

UNLESS YOU'VE LOST CROPS, wildlife habitat, or landscaping to them, the phrase "feral hogs" probably doesn't raise your blood pressure much. But these highly destructive invasive animals have become a problem, especially in the southeastern part of our state.

The landowners you're about to meet learned about feral hogs the hard way, and they all agree on the solution. Quick identification of the problem and strong partnerships with the Missouri Department of Conservation, the U.S. Department of Agriculture (USDA), and fellow landowners are vital to eradicating feral hogs in Missouri.



Unwanted Guests at the Farm

Herman Wilfong owns 380 acres in Wayne County. After farming cattle for 35 years, Wilfong sold his herd, and now he keeps about 60 acres in cropland, with the remaining open fields devoted to wildlife food plots such as wheat, clover, milo, cowpeas, and corn.

"The main focus is on deer and turkey, but I would also like to develop habitat for rabbits and quail," he said.

His land is ideal for this goal. The 280 acres of woodland provides cover and food sources for wildlife. The remaining acres provide many wildlife resources, such as varying heights of grasses and food sources.

What's not ideal are his unwanted guests, who usually crash the party in the evenings. He first learned there were feral hogs on his property when a guest deer hunter reported hogs near his deer stand in 2012. Shortly after, Wilfong found evidence of rooting in several spots.

"The first year we only had spot damage in three or four small areas," he said. "Then in 2013, the hogs basically destroyed a whole 5-acre portion of my land, with additional spot damage in other fields."

Wilfong did exactly what the Department of Conservation recommends landowners do when they find feral hogs on their property. He immediately reported the damage to his local Department of Conservation office. Soon after, a wildlife management biologist assisted in setting up two trapping sites on the Wilfong property.

"After constructing the two pens last year, I baited and ran the traps daily through February," Wilfong said, adding that the last hog sign he observed was in late January.

Now, as soon as Wilfong detects sign, he baits the traps again. In 2013, he successfully trapped four hogs, which makes him hopeful that he prevented some future damage, but he knows the surrounding population of hogs can continue to impact him.

"There's such a large hog population in this area, I anticipate future hog destruction on my property," he said.

Wilfong said the best advice he can give other landowners is to keep an eye out for feral hog sign, contact the Department of Conservation, and get ready to trap feral hogs.

Feral Hogs Foul Water, Destroy Crops, and Gobble Up Profits

Cynthia Wesling and Danny Miller have several properties in Madison County, where Danny has lived for 30

Herman Wilfong first learned of feral hogs on his Wayne County property in 2012. Now he knows the signs of hog damage and baits two trapping sites on his land.



years. One 140-acre property is especially valuable to Cynthia and Danny because of the land's half-mile of river frontage on the Big St. Francis River, natural spring, and several ponds. About 100 acres of the property is made up of pasture and cropland, and the rest is hilly forest. Twenty-five acres are row crops, and the pasture supports about 30 cows.

"We enjoy the beauty of nature here," Wesling said. "Our property has a wonderful southwestern exposure that affords gorgeous afternoons and sunsets. I never get sick of the view."

But many of the same features Wesling and her husband find so valuable also attract feral hogs that routinely cross the property to access water and the undisturbed forest area.

"We both enjoy our way of life living on the farm in such a rural setting," Wesling said. "We aren't getting rich by any means, but we both think there is more to it than finances."

Unfortunately, finances are where this couple has taken the hardest hit from feral hogs.

"We both work full time in outside jobs to make ends meet. That is also why the hog issue is such a problem.

Cynthia Wesling and Danny Miller are far too familiar with the damage feral hogs can cause. Because the hogs adapt to locations, they have to move traps on their Madison County property every couple of months.

We can barely make a profit on the farm in most years due to weather concerns, so to have another obstacle to deal with is time-consuming and hurts the bottom dollar," Wesling said.

Wesling figured the financial hit they took from their most recent crop damage caused by the hogs amounted to \$5,500.

"I'm appalled," Wesling said. That financial cost doesn't count the time wasted in planting the crops that were destroyed, or the time trapping and disposing of hogs to reduce future occurrences of damage.

The couple has two hog traps set on their property at all times, but Wesling said the hogs adapt to locations, so they continue to move the traps every couple of months.

"Our success has been sporadic," Wesling said.

The couple killed 10 hogs last spring and summer. Although feral hog trapping is tedious, it must be done.



Wildlife Management Biologist Mark McLain inspects feral hog damage on conservation areas. Biologists on the feral hog team also provide technical advice, loan equipment, and make on-site visits with landowners.

"It requires constant vigilance to keep the hog population under control," she said.

They're Wiley, Vicious, and Strong Enough to Break a Fence

Don Kory dreamed of owning land in the Missouri Ozarks for decades. His first experience in the area was a camping trip to Johnson's Shut-Ins more than 50 years ago.

"The hills, trees, rocks, clear streams, and wildlife left me with such an impression that it became my lifelong dream to be a part of such a beautiful and peaceful place," Kory said.

He realized that dream about 40 years ago when he purchased a small piece of land. Now, after several expansions and a lot of hard work, Don and his wife, Lynn, own about 500 acres in Reynolds County.

"We enjoy it every day," he said of the family property. "Hiking, hunting, and fishing have always been a part of the enjoyment we call 'the country.'"

In all that dreaming, Kory didn't foresee a threat to his beloved land in the form of feral hogs. Six years ago, he spotted the damage before he saw the culprits.

"We started seeing some rooted-up ground on the hills and glades," he said.

One year later, the hogs invaded his fields, destroyed the garden, and plowed his yard. All of the damage occurred without Kory actually seeing a feral hog, but he knew what was causing it. After working for Purina for 38 years and seeing hog rooting behavior in other locations, it was an easy calculation.

"It was just, ah shucks, looks like the hogs are moving in," he said.

Kory called the Department of Conservation about the hog invasion, and biologists examined the damage.

"They said we had feral hogs and they said it was probably a lot more of them than I thought. And it was," Kory said.

The extensive damage to his property meant there was a growing population of hogs in the area. To catch the hogs, three traps were constructed in different areas of the property. In the first three years of trapping, more than 150 feral hogs were trapped successfully.

"At first, trapping was somewhat exciting," Kory said. "However, it soon became a time-consuming, dirty chore."

Kory said hog trapping is unpredictable. He never knew when he would have hogs in the trap. Also, it takes more than a little bit of corn to entice the hogs.

"It takes about 10 to 12 bags of corn to lure them into the trap before setting it to make a catch," he said.

What really aggravates Kory about the feral hog invasion are the hogs' temperament and public's lack of understanding about feral hog damage.

"When you experience what a feral hog is like in a trap, they're nothing like the tame pigs they call 'wild hogs' on TV," Kory said. "I had a big sow jump right over a cattle panel and another break the welds on the panel and go right through it. The strength and temperament of a large feral pig is something."

Currently, the Kory family has trapped 174 feral hogs on their property. Kory said landowners who haven't yet experienced feral hogs on their property sometimes don't understand the damage the animals cause. But after years of trapping and responding to the wreckage they leave behind, he knows the situation all too well.



"It seems many people think it would just be great fun to have 'wild boars' on your property to hunt. But if you are a landowner and enjoy your land the way it is, I say be happy if you never see a feral pig."

—DON KORY, REYNOLDS COUNTY LANDOWNER



Above: Don Kory checks a game camera to make sure the hogs are still in the area before baiting and setting a trap. Right: Landscape damage and mud wallows from feral hogs on Kory's land near Ironton



"It seems many people think it would just be great fun to have 'wild boars' on your property to hunt," he said. "But if you are a landowner and enjoy your land the way it is, I say be happy if you never see a feral pig."

Kory said he and Lynn used to become concerned when native wildlife would take vegetables from their garden, but the feral hog damage has put that into perspective.

"When the pigs arrived, they plowed the entire garden in one night," he said. "If you are growing hay, crisscross your field with a plow, let the grass regrow, and that's what it's like to have feral pigs when you try to mow it."

Statewide Eradication Depends on Landowner Participation

Herman Wilfong, Cynthia Wesling and Danny Miller, and Don and Lynn Kory aren't the only landowners battling feral hogs. The Missouri Department of Conservation has

been working with landowners in the Southeast Region for about 10 years, according to Mark McLain, a Department of Conservation wildlife management biologist. He and other conservation employees worked to implement



NOT THE SAME AS FARM HOGS

The majority of feral hogs in Missouri are mutts with genetic combinations that include Russian or Eurasian wild boar (razorbacks), an assortment of domestic varieties such as Yorkshire, Hampshire, or Duroc, and even pot-bellied pigs. The resulting offspring exhibit a variety of shapes and colors including gray, red, black, blond, spotted, and belted. All have

small eyes, large triangular ears, and a long snout ending in a large, round nose. They have a thick coat of coarse, bristly hair that they can erect along their spine, lending them the common name "razorback." Most feral hogs have longer bristles than their domestic ancestors, but shorter hair than those of purebred Russian boars. Boars develop a thick, tough

layer of cartilage (sometimes called a "shield") over the shoulders, and have four sharp tusks that grow continuously, often reaching 5 inches before they break or become worn from use. The bottom tusks are formidable weapons used for defense and to establish dominance during breeding.

Learn more about identifying feral hog damage and controlling local invasions at mdc.mo.gov/node/17158.

a Feral Hog Eradication Plan in 2012, which organized efforts and established partner agencies for the project.

"I work with landowners who have, on average, trapped 30 to 90 hogs per year for several years," McLain said.

There are a number of counties in southeast Missouri where feral hogs have been reported to be a problem. Within those counties, the Department of Conservation and the USDA currently have dozens of working hog traps on public and private land. The two agencies employ annual aerial gunning to target hogs in remote areas that cannot otherwise be reached for trapping.

In fiscal year 2014, Congress approved a Feral Swine Initiative for the USDA to assist states with feral hog eradication. This much-needed initiative will allow the USDA to work cooperatively with the Department of Conservation to implement a statewide management program with the goal of eradicating feral hogs in Missouri. "When you consider the danger that feral hogs pose to wildlife and their habitat, agricultural efforts, and private property, every possible effort to eradicate them is necessary," McLain said.

Biologists on the feral hog team are busy — working with 73 landowners in 2013 and 57 in 2014 — providing technical advice, lending equipment, and making on-site visits. In southeast Missouri, the combined Department of Conservation and USDA efforts led to the elimination of 721 hogs in 2013 and 514 hogs in 2014.

McLain, the Feral Hog Eradication Team, and many landowners in and surrounding the affected counties hope that the problem might be contained and eventually eliminated. In order to achieve that goal, McLain and his colleagues need landowners to learn the process of identifying and reporting feral hog damage as soon as they suspect a problem.

The most important part of battling feral hogs is landowner involvement, McLain said. If one landowner in an area is fully engaged in the feral hog battle and others aren't, the hogs will continue to spread.



Conservation Agent Alan Lamb gathers and removes feral hogs trapped on Clearwater Conservation Area. The Department of Conservation is working with the USDA to implement a statewide management program to eradicate feral hogs in Missouri.

To report possible feral hog sign on your property and enlist assistance, contact your local Department of Conservation regional office, or call the USDA Feral Swine Coordinator, Brad Jump, at 417-895-6880, ext. 1642. ▲

Candice Davis has been a media specialist for the Department of Conservation since 2008, after working as a newspaper editor and serving as a U.S. Navy journalist. A southeast Missouri native and Jackson resident, Candice also writes the Discover Nature blog at SoutheastMissourian.com.



1-2-2015
STUDIES OF GRAY SQUIRREL
AT MY BIRD FEEDER.

Memory Catchers

Nature journals bring treasured
outdoor memories to life

BY GLADYS J. RICHTER | ARTWORK BY MARK RAITHEL



WHITE-BREASTED
NUTHATCH, MY
UPSIDE-DOWN
FRIEND.



NUTHATCH FOOT
WITH ITS LARGE
BACK TOE. THIS
WAS HARD TO DRAW
THROUGH BINOCULARS.



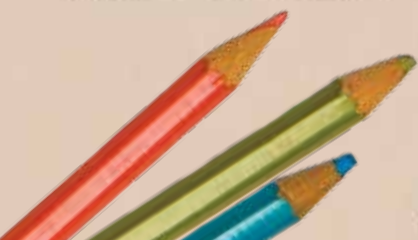
1-3-2015
BLACK-CAPPED CHICKADEES
AT MY FEEDER. 15° OUTSIDE
AND THE BIRDS ARE FEEDING
STRONG.



CHICKADEE
FLYING IN



CHICKADEE
ON SUET
FEEDER



M

EMENTOS OF MY outdoor excursions can be found strewn among bookshelves, on my writing desk, and atop windowsills.

The collection includes a rock with a tiny shell fragment, a framed cottonwood leaf from a favorite fishing hole, and a piece of driftwood found while hiking along the Gasconade River. Each one recalls memories of a camping trip, a hike, or a day of childhood exploration. While these artifacts help me to remember, they cannot tell the whole story. For that, I turn to my nature journals, or "memory catchers," as I like to call them. Inside their pages are the dates, places, and people surrounding the good times spent out-of-doors.

Journaling for All Ages and Activities

It all started during the fourth grade with a class assignment to study trees. We were to collect 15 leaves, press them until dry, and glue them onto pages inside a binder. Our teacher instructed us to write each tree's name, date of collection, and location. After that, I was hooked and began keeping nature journals on my own. Today, my journals contain sketches, watercolor washes, and notes about my experiences.

Nature journaling can take on many forms, from a simple list tracking bird species at the

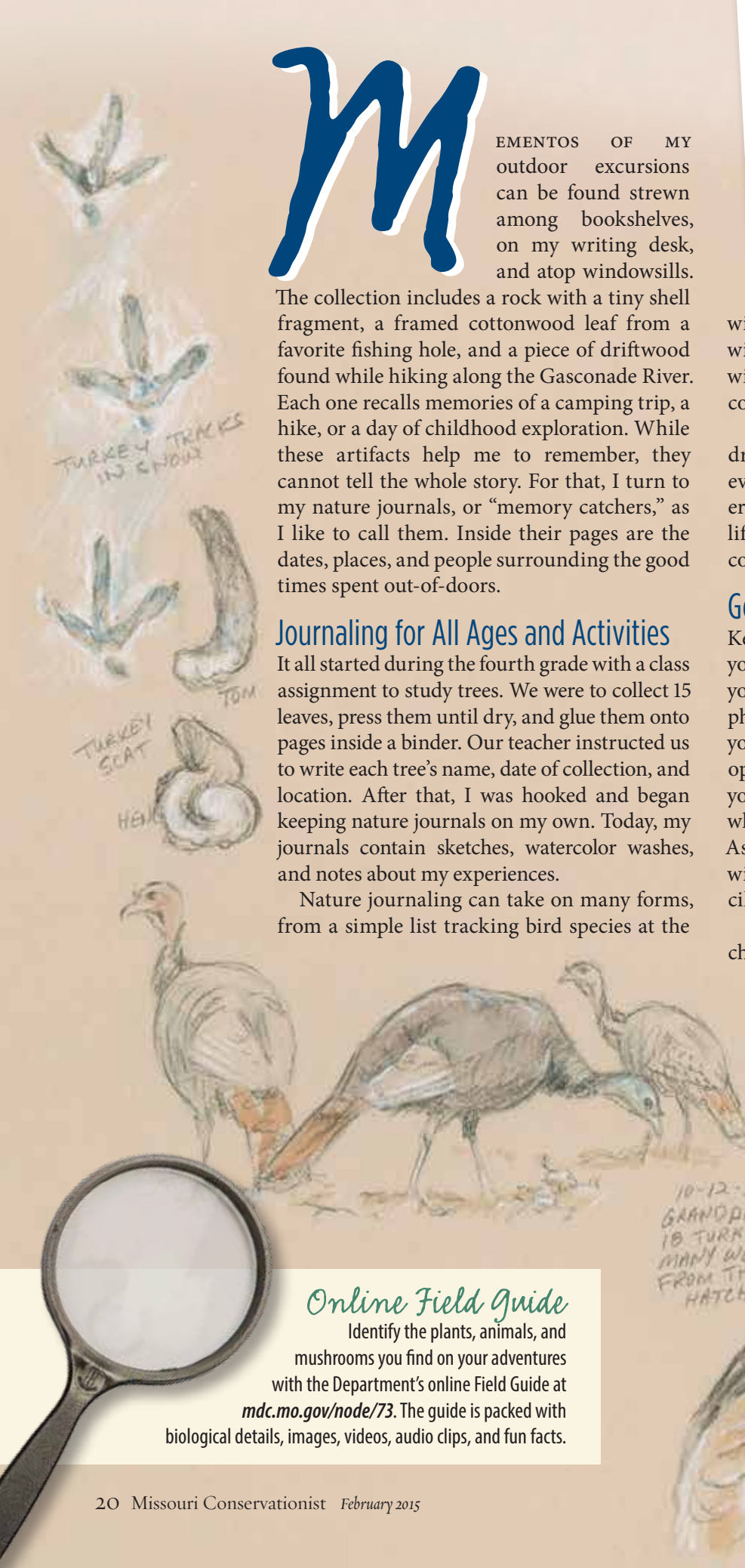
window feeder to a sophisticated collection of wildflower and butterfly paintings complete with their scientific names. Outdoor photos complete with notes are a common form.

Nature journaling is for all ages. Young children love to draw and show their discoveries to everyone. Bird enthusiasts adore toting weathered bird observation logs containing their life lists. Vacation and camping journals that contain treasured memories are always in style.

Getting Started

Keeping a nature journal is not expensive. All you need to start is a pencil and a notebook. If you plan to make sketches, paintings, or add photos, then an unlined journal works best. If you like to write more and draw less, you may opt for a lined journal. Spiral notebooks allow you to lay them flat to record your findings, which make them perfect for outdoor settings. As you discover your personal style, you may wish to add ink, chalk, charcoal, colored pencils, or paints. The possibilities are endless.

A nature journal is a great place to keep brochures and maps. It is easy to tuck a small, thin,



Online Field Guide

Identify the plants, animals, and mushrooms you find on your adventures with the Department's online Field Guide at mdc.mo.gov/node/73. The guide is packed with biological details, images, videos, audio clips, and fun facts.



6-15-2014
GRANDPA'S POND
CAUGHT THIS
BLUEGILL ON MY
FLY ROD.

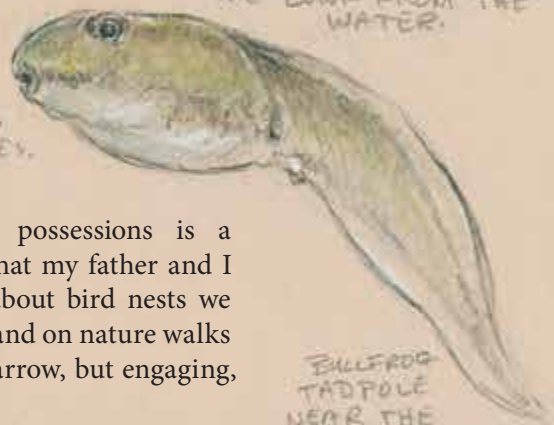


THE BLUEGILL
LOVED THE YELLOW
PUTTER. BEST WAY TO
FISH IT. LET IT SIT
FOR A SECOND. GIVE A
LIGHT JERK & WATCH OUT



MANY BLUEGILL NESTS
BEING GUARDED BY THE MALES,
USUALLY SWIMMING IN CIRCLES.

BIG BULLFROG STARING
ME DOWN FROM THE
WATER.



BULLFROG
TADPOLE
NEAR THE
SURFACE BY
THE DOCK.
ITS BACK LEGS
SHOULD BE
DEVELOPING SOON.

notebook and a pencil into a jacket pocket or backpack for the journey. I like to carry a nontoxic glue stick along to attach small paper souvenirs. When I visit nature centers, I inquire about site-specific pamphlets, stamps, or postcards for my nature journal. Children enjoy pasting cutout pictures of wildlife into their books as well.

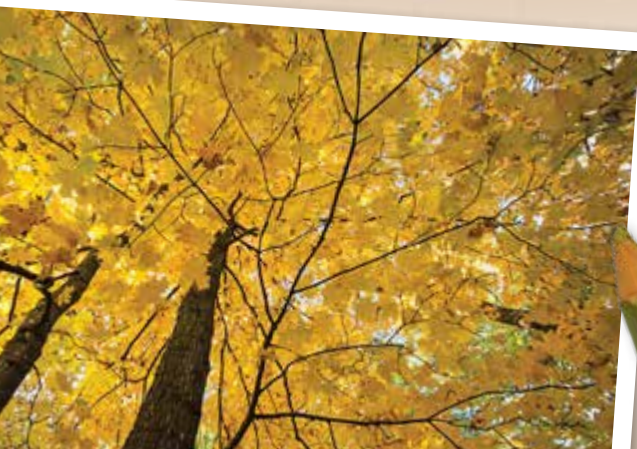
Types of Nature Journals

Journals can be of a single topic of study or a set of observations (number of wild turkeys spotted on grandpa's farm). It can also consist of a running list of weekly, monthly, and yearly nature sightings (return of spring songbirds, newly hatched lizards racing in the garden, or the first frost of autumn).

Among my treasured possessions is a journal about bird nests that my father and I started. We made notes about bird nests we spotted around our home and on nature walks in Missouri. It is a very narrow, but engaging, approach to nature study.

Many of my notebooks have chronological entries that include the first flowers of spring, summer fishing trips, and the fall migration of monarchs. Winter entries have notes on temperature, snowfall measurements, and visitors to the bird feeders.

Some avid hunters and anglers also keep journals for later reference. Careful observation notes about the activity of deer (rubs and scrapes) and turkey (roosting locations, direction of gobbling, and size of flocks) can all aid in your hunting trips. Weather patterns, cover, and water levels can give clues as to when and where the fish are likely biting.





Tips for Keeping a Journal

Nature journaling should be a fun experience. When traveling and hiking, it is best to carry just a few lightweight tools. Your journal, some colored pencils, and a pencil sharpener are all you need.

Two other tools that delight both scientists and children are a magnifying glass and a small ruler. With these you can record details in your journal to help you identify insects, rocks, plants, animal tracks, and more. Because I like to travel light while journaling about Missouri's native plants, I carry a piece of string with quarter-inch increments marked

off in permanent ink to use as my ruler. It is flexible enough to measure stems, leaves, petals, and even tree trunks. This string is easy to roll up and tuck inside the envelope pocket of my journal.

While journaling with young children, keep it simple. Consider taking a small box of crayons and removing the wrapping paper from each one. Then take your budding naturalists on a walk where they can find many types of leaves, tree bark, and rocks (flat sandstone works great). Let them use the unwrapped crayons to make rubbings on paper to discover a world of textures and patterns. Adults interested in rubbings may prefer traditional charcoal instead of wax crayons; charcoal is more fragile but yields more detailed results.

If you find a bird feather, gently lay it beneath the paper to rub also; just remember to leave the feather in nature when you are finished. In fact, it is usually a good practice to record your discoveries and leave the natural items where you find them.

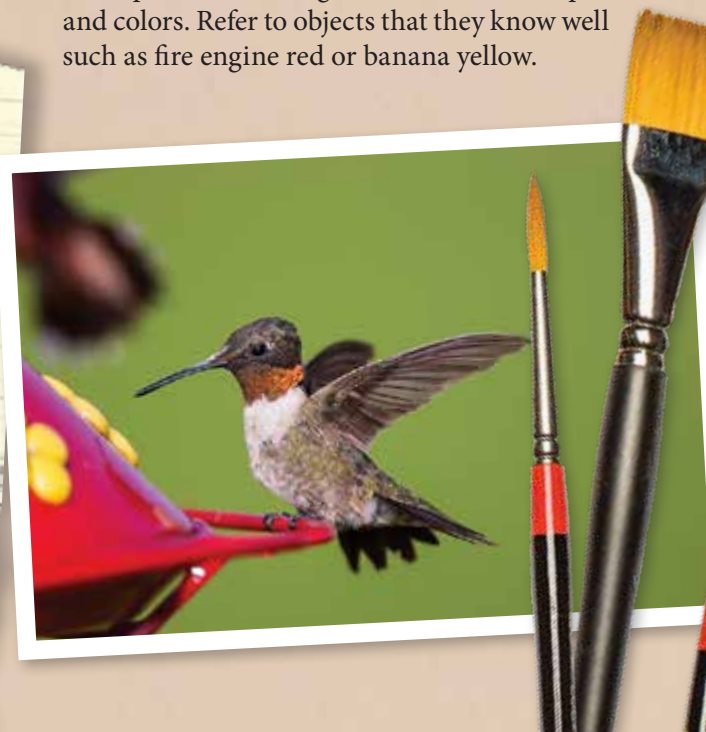
Encourage your children to use vivid descriptions involving all the senses, shapes, and colors. Refer to objects that they know well such as fire engine red or banana yellow.

Journals of Yesterday and Today

Journals were companions to early travelers. Among the most famous of these are the journals of Captain Meriwether Lewis and Second Lieutenant William Clark. Looking at their travel journals, one can catch a glimpse of how plant and animal life was distributed in America centuries ago. Their journals paint a glorious picture of the wildflowers, medicinal plants, flocks of birds, hunting excursions, and lands before them.

Notes and drawings kept by naturalist and painter John James Audubon and explorer Henry Rowe Schoolcraft capture the animal life and landscape of Missouri. Some nature journals mention species now extinct, such as the Carolina parakeet and the passenger pigeon. Other journal entries depict seemingly endless prairies with tall grasses and hardly a tree in sight for miles.

Our present-day landscape is, in many ways, vastly different from what early settlers first came upon. Keeping a journal today can help give your grandchildren a window view of the natural world around you and your generation.





8-25-14
MONARCH BUTTERFLY
FLYING. VERY HARD
TO DRAW THEIR MOVEMENT.
THEY NEVER LANDED
FOR ME.



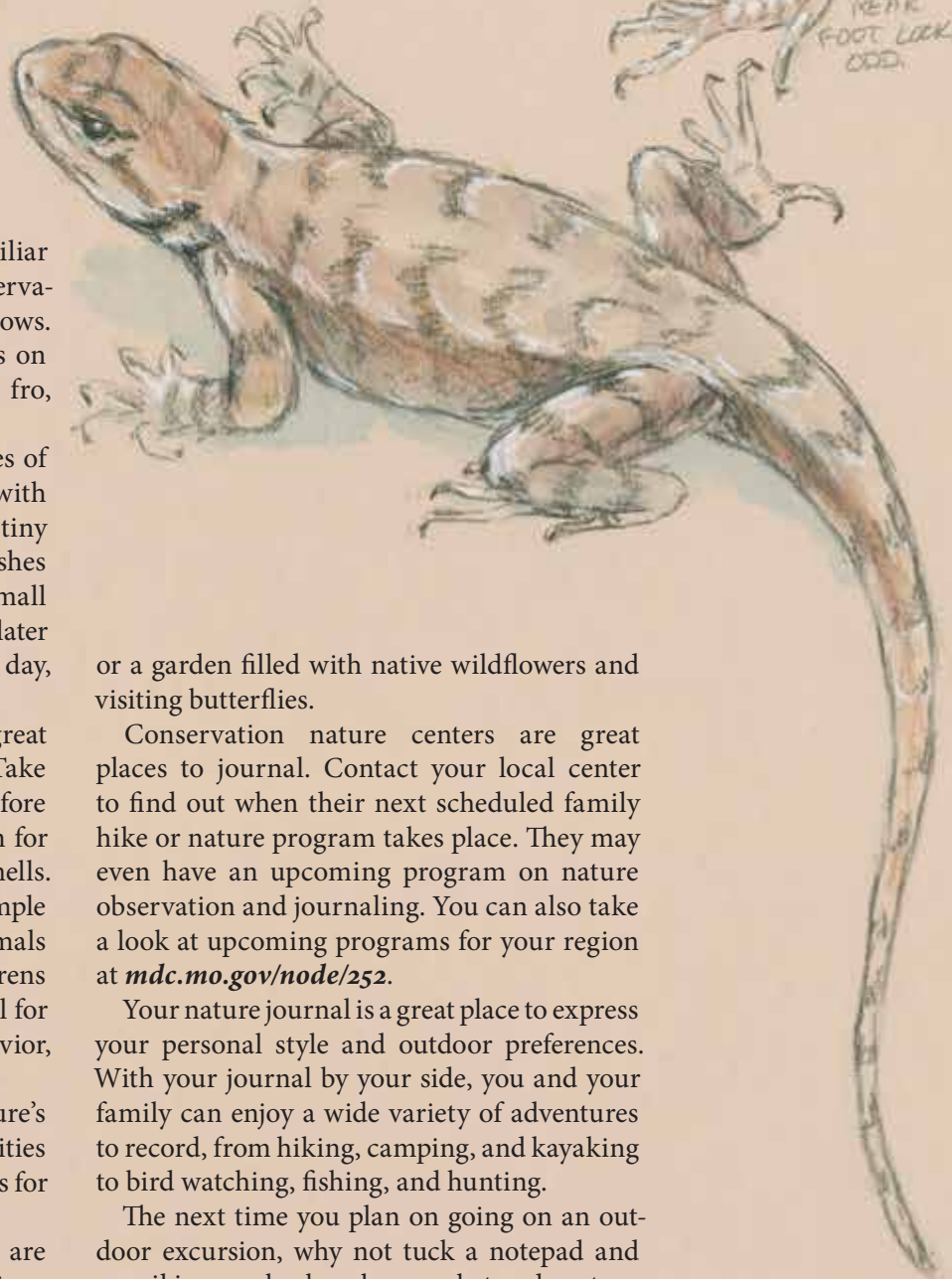
PRAIRIE LIZARD STUDIES.
THIS ONE STAYED MOTIONLESS
SUNNING ON A ROCK.



THIS ONE
LOST ITS TAIL
FROM A PREDATOR.
IT WILL GROW
BACK.



REAR
FOOT LOOKS
ODD.



Look for similarities in nature to familiar sights or sounds. One of my favorite observations occurred while watching fox sparrows. These tiny birds acted much like chickens on the farm — scratching, bouncing to and fro, and stirring up leaves.

Older children may enjoy different types of nature journaling tools. A small backpack with some watercolor pencils, a brush, and a tiny container of water is a fun way to add splashes of color to their entries. They can use small squares of watercolor paper that they can later glue into their journals. On a warm, sunlit day, watercolor art dries very fast.

For everyone, nature journaling is a great way to become a better observer of nature. Take time to really notice your surroundings before writing or drawing in your journal. Listen for sounds, and take note of colors and smells. Watch for quick animal movements. Simple line gestures showing the actions of animals can help in identification. For example, wrens are very feisty little birds that never sit still for very long. Noting their size, sound, behavior, and color markings give them away.

Take notice of the small pieces of nature's puzzle. Snails, buds on trees, and the activities of a busy ant colony can all become subjects for quiet moments spent with your journal.

Go to where the action is so that you are excited about journaling your observations. Get inspired by hummingbird feeders in your yard, a tour at a trout hatchery to see the fish,

or a garden filled with native wildflowers and visiting butterflies.

Conservation nature centers are great places to journal. Contact your local center to find out when their next scheduled family hike or nature program takes place. They may even have an upcoming program on nature observation and journaling. You can also take a look at upcoming programs for your region at mdc.mo.gov/node/252.

Your nature journal is a great place to express your personal style and outdoor preferences. With your journal by your side, you and your family can enjoy a wide variety of adventures to record, from hiking, camping, and kayaking to bird watching, fishing, and hunting.

The next time you plan on going on an outdoor excursion, why not tuck a notepad and pencil in your backpack or pocket and capture a few memories. ▲

Gladys J. Richter is an interpretive writer from Richland, Missouri. She and her family enjoy many outdoor activities including fishing, kayaking, and seasonal nature walks.







Regulations 2015 Update

Missourians care about forests, fish, and wildlife. To ensure these resources are protected, the Conservation Department reviews the *Wildlife Code of Missouri* each year. In doing so, the Department considers hundreds of suggestions from hunters, anglers, and other citizens. Every suggestion is carefully reviewed, though not all are adopted. The following is a summary of key changes to the *Wildlife Code* for 2015. The changes will go into effect March 1 unless noted.



Hunters will be able to take coyotes during spring turkey season beginning in 2015.

Missouri is a world-class place to hunt, fish, and experience nature. The following rules offer new opportunities to engage in outdoor activities.

• Hunters will be able to take coyotes during spring turkey season beginning in 2015. Anyone pursuing coyotes during this time must use only methods allowed for spring turkey hunting and must have an unfilled spring turkey hunting permit and either a Resident Small Game Hunting Permit or a Nonresident Furbearer Hunting and Trapping Permit. As was previously the case, coyotes may not be chased, pursued, or taken during daylight hours from April 1 until spring turkey season begins.

• Beginning in 2015, pheasant hunting will be allowed statewide. In the past, pheasant hunting was restricted to areas north of Interstate 70 and a few counties in the Bootheel. Missouri's pheasant population has not increased significantly, but because harvest is limited to males only, allowing statewide hunting should not affect the population. This rule change will offer more opportunities to hunters and simplify regulations by making season dates and bag limits the same throughout the state.

The Conservation Department strives to develop regulations that are precise, concise, and easy to understand. The annual review of the *Wildlife Code* offers opportunities to revise and clarify existing regulations.

• Greer Spring Branch on the Eleven Point River has always been closed to fishing. Recently, property surrounding the spring was transferred from private ownership to management



by the U.S. Forest Service. Because of this, the reference in the *Wildlife Code* to the private property boundary was no longer correct. The *Code* was amended to reflect the change and now states that no fishing is allowed on Greer Spring Branch upstream from its confluence with the Eleven Point River.



• Bighead and silver carp are invasive species that have gained a foothold in Missouri's rivers. To prevent further spread, several rules in the *Wildlife Code* prohibit the use of these fish as live bait. During its annual review of the *Code*, the Department's Regulations Committee found a rule that wasn't consistent with the



Greer Spring Branch on the Eleven Point River in the Ozark Region.


others. The rule was amended, and now the *Code* states throughout that only dead bighead and silver carp may be used as bait.

Regulations are designed to sustain healthy plant and animal communities. Some rules regulate the harvest of certain species; others curtail the spread of invasive animals and plants.

- The only place in the world where one can find grotto sculpins is in and around five caves in Perry County, Missouri. Because of their limited distribution, these pale, cave-dwelling fish are vulnerable to extinction. Grotto sculpins were afforded extra protection when they were listed as an endangered species by the U.S. Fish and Wildlife Service in 2013. In August 2014, the fish was added to Missouri's list of endangered species to make the *Wildlife Code* consistent with federal regulations.

- Round and tubenose gobies are freshwater fish that were accidentally introduced into the Great Lakes by ocean-going ships. Originally from areas around the Black and Caspian seas, these invasive fish compete with native species for food and habitat, serve as hosts for several



 **Grotto sculpins were added to Missouri's list of endangered species in August 2014 to make the *Wildlife Code* consistent with the U.S. Fish and Wildlife Service regulations.**

diseases and parasites, and prey on native species. Biologists believe these gobies would prey on smallmouth bass nests and pose particular harm to Missouri's darters, sculpins, and mussels. To prevent the introduction of these unwanted fish into Missouri's waters, round and tubenose gobies were added to the Department's prohibited species list.

- The Department is concerned about all wildlife diseases and works to address these threats through timely regulation changes. Of particular concern is chronic wasting disease (CWD), which is a fatal disease that affects members of the deer family. To reduce the risk of CWD spreading beyond the limited area where it has been found in north-central Missouri, the Department enacted several rule changes affecting big game hunting preserves and deer breeding facilities. The new rules ban the importation of live white-tailed deer, mule deer, and their hybrids into Missouri; prohibit the use of imported cervids in big game hunting preserves; improve fencing

We Want Your Input

Citizen participation has been the cornerstone of conservation efforts in Missouri since the Department was formed in 1937. To offer input on the *Wildlife Code of Missouri*, visit mdc.mo.gov/node/4871. Once there, you can:

- » Read the full text of each chapter of the *Wildlife Code*.
- » Offer suggestions for how the Department can improve existing regulations.
- » See a list of regulations the Department is proposing to amend and offer comments on the proposed changes.

To sign up for email alerts about proposed regulation changes, visit sos.mo.gov/adrules/Notifications.asp.

How Regulations Are Set

Each year, the Conservation Department's Regulations Committee reviews the *Wildlife Code* to ensure Missouri's forests, fish, and wildlife are protected. Here's how the process works.

1. Changes proposed by the public and Department staff are brought to the Committee to review.
2. The Committee researches the effects of the proposed regulation changes. Information reviewed may include costs to citizens and government agencies, effects on wildlife populations, user group surveys, public comments, and feasibility studies.
3. When research shows a change would improve a natural resource or provide more opportunities for Missourians to enjoy nature without detrimental effects to natural resources, a proposed regulation change is sent to the Conservation Department's director.
4. If the director approves the change, the proposal is submitted to the Conservation Commission, a group of four citizens who are appointed by the governor.
5. If passed by the Conservation Commission, the proposed changes are filed with the secretary of state and published in the *Missouri Register*. A link to the *Register* can be found at mdc.mo.gov/node/4871.
6. Publication of proposed changes in the *Missouri Register* begins a 30-day public comment period. If no comments are received, the final regulation is filed and becomes effective on the date specified in the proposal or 30 days after publication in the *Missouri Code of State Regulations*.
7. When comments are received, the proposal is reviewed. Based on the public's comments and available research data, the Commission may decide to withdraw, modify, or implement the regulation.

requirements and record-keeping for these facilities; and prohibit new facilities from opening, for a period of five years, within 25 miles of where CWD has been found. To learn more about these rules and other steps the Department is taking to protect Missouri's deer, visit mdc.mo.gov/node/16478.

• Feral hogs compete with native wildlife for food and habitat, destroy sensitive natural areas with their rooting behavior, and, in other states, are known to carry diseases such as swine brucellosis and trichinosis that can spread to people, pets, and livestock. Feral hogs are adept at escaping from fenced enclosures and reproduce quickly in the wild. The *Wildlife Code* was amended in January 2015 to prohibit the propagation, holding in captivity, and hunting of hogs inside big game hunting preserves. Properly licensed big game preserves that offered hog hunting prior to Jan. 30, 2015, will be exempt from this rule change. ▲



> To reduce the risk of chronic wasting disease, the Department enacted several rule changes regarding hunting preserves and wildlife breeding facilities.

American White Pelican

I WAS MAKING the first tracks of the day in fresh snow at Eagle Bluffs Conservation Area when I noticed in the rear-view mirror that the undercarriage of my 4x4 truck was dragging furrows into the soft, crystalline blanket. After passing through the entrance gate to the area, I attempted a right turn to check on an overlook and canoe launch on the Missouri River. Instead, the truck kept its forward momentum and slid slowly down the shallow bank of a levee and came to rest on the frozen edge of a wetland marsh. Where there was no cell phone reception.

There were two courses of action: panic or photography. I was dressed for the weather and had a fully charged camera battery, so I chose the latter. The truck could be dealt with later.

The weight of the tripod and large lens dug gently into my shoulder as I walked. The landscape was silent save for the wind through the marsh grass and the faint honks from a skein of geese passing high overhead. The solitude was comforting.

My footfalls crunched along the levee road and a bracing breeze off the wetland watered my eyes. The area was alive with activity easy to overlook from the comfort of a passing vehicle. A pair of swans circled by the edge of a slough, well camouflaged with their white plumage. A few mallards and a Canada goose flapped out of the water, startled, and waddled away over the snow at the sound of my approach. A pod of pelicans huddled close together on a small island, faces tucked under wings against the wind.

The American White Pelican (*Pelecanus erythrorhynchos*) can often be seen flying along the big rivers and resting in wetland pools. They feed on small fish, and groups of the birds will work together to herd the fish before plunging their heads underwater and scooping up mouthfuls, the pouches beneath their yellow bills drooping heavily.

I watched the pod bunch together for several minutes for warmth. Then several flapped their wings and made a show of taking off from the others with a squawk, to swim and feed together. After several minutes, the feeders returned to the main group, all the birds huddled against the wind, heads tucked beneath wings, and then the pattern repeated over and over.

The hike back to the truck warmed me, and watching the birds helped clear my mind. Strategic wedging of floor mats under my tires gave me enough traction to get back on the roadway. The unplanned hike turned out to be a great morning enjoying a slice of avian life that I might have driven past.

—Story and photograph by David Stonner

 500mm lens + 1.4 teleconverter • f/5.6 • 1/2000 sec • ISO 400

We help people discover nature through our online field guide. Visit mdc.mo.gov/node/73 to learn more about Missouri's plants and animals.





Caney Mountain Conservation Area

If you're looking to experience the true Ozarks, this conservation area offers a unique sampling of habitat, history, and hills.

SHORTLY AFTER THE formation of the Missouri Conservation Commission, a steep and rugged tract of land within the geologic region known as the Gainesville Monadnocks was purchased for the purpose of a wild turkey refuge. The year was 1940, and the land that surrounded the Caney Creek drainage became known as the Caney Mountain Refuge. The refuge took its name from the creek as well as the abundant stands of giant river cane located along the creek banks. This area of Ozark County was one of the last strongholds for turkeys in the state. A. Starker Leopold, son of conservation pioneer Aldo Leopold, was hired by the Commission to conduct turkey research there and prepared the area's first management plan. Leopold's old log cabin is still on the area, and it is a fascinating historical piece for visitors.

A lot has changed since those early days, but management for deer, turkey, squirrels, and other game species continues on the area's current 7,899 acres. Hunting is permitted under statewide regulations on portions of the area, and managed hunts are held annually in the former turkey refuge on the area. Staff annually plant 60–80 acres of green browse plots as supplemental food sources for wildlife and use prescribed fire to maintain diverse native plant communities. The 1,330-acre Long Bald Natural Area contains some of the best examples of glade and woodland systems in the state, and it includes a wide range of plant and animal species that are adapted to live in this dry and rocky habitat. Some of these species include the eastern collared lizard, eastern wood-peewee, summer tanager, and indigo



24–70mm lens • f/6.3 • 1/320 sec • ISO 400 | by David Stonner

bunting, as well as the brilliant blooms of coneflowers, blazing star, and Missouri evening primrose.

Several miles of gravel roads are suitable for taking a driving tour to view the scenic overlooks, trying to catch a glimpse of a black bear, or to take in fall color. Along the road on the Preston Flats Ridge, visitors can enjoy a picnic lunch while overlooking the entire Caney Creek drainage. There are three designated hiking trails and a 6.5-mile multiuse trail that loops through the area. In addition, overnight camping is permitted in three separate campgrounds.

Caney Mountain is a great place to step back in time and enjoy the stillness and solitude found in these Ozarks hills. The main entrance to the area is located 6 miles north of Gainesville on Hwy 181.

—Randall Roy, area manager



Caney Mountain Conservation Area

Recreation Opportunities: Bird Watching, hunting, hiking, biking, horseback riding, primitive camping, wildlife and nature viewing, driving tour, archery range, unstaffed firearms range.

Unique Features: Managed glades and woodlands, High Rock Mountain, Spout Spring nature trail, Long Bald Natural Area, Leopold Cabin, and numerous caves and springs.

For More Information: Call 417-679-2363 or visit mdc.mo.gov/a5202.



MDC DISCOVER nature



IDEAS
FOR
FAMILY
FUN

To find more events near you, call your regional office (phone numbers on Page 3), or visit mdc.mo.gov and choose your region.

TURKEY CALL WORKSHOP: BOX CALLS

FEB. 7 • SATURDAY • 8 A.M.–NOON

*Ozark Region, Twin Pines Conservation
Education Center, Rt. 1 Box 1998,
Winona, MO 65588*

Registration required, call 573-325-1381

Ages 12 and older

Learn to make your own turkey call out of Missouri cedar just before turkey season this spring!

DISCOVER NATURE — FISHING: VOLUNTEER INSTRUCTOR TRAINING

FEB. 7 • SATURDAY • 9 A.M.–2 P.M.

*Northeast Region, Northeast Regional Office,
3500 S. Baltimore, Kirksville, MO 63510*

Registration required, call 660-785-2420

*Ages 14 and older, under 16 must attend
with an adult*

The Discover Nature — Fishing Program will be holding a Volunteer Instructor Training and Yearly Planning Meeting in the Northeast Regional Office. Those who are passionate about fishing and interested in passing it on are encouraged to attend.

MAPLE SUGAR FESTIVAL

FEB. 7 • SATURDAY • 10 A.M.–3 P.M.

*St. Louis Region, Rockwoods Reservation,
2751 Glencoe Road, Wildwood, MO 63038*

No registration, call 636-458-2236

for information

All ages

Experience conservation success and forest

resources at their finest — and sweetest! Visit the Sugar Bush to see trees tapped. Boil sap down at the Three Kettle Station and Sugar Shack. Taste delicious syrup, sugar on snow taffy, and pure maple sugar. Parking available on-site and off-site via a shuttle bus.

DISCOVER NATURE — FISHING: THE BASICS OF TROUT FISHING

FEB. 10 • TUESDAY • 6–9 P.M.

*Northeast Region, MDC Hannibal office,
8965 Hwy 36, Suite 1, Hannibal, MO 63401*

Registration required, call 573-248-2530

*All ages, 16 and younger must be
accompanied by an adult*

Learn the history, habitat, and equipment it takes to catch a rainbow trout in Missouri's waterways.

NATURE CENTER AT NIGHT: SLIMY, SPOTTED SALLIES

FEB. 12 • THURSDAY • 5–8 P.M.

Southeast Region, Cape Girardeau

*Conservation Nature Center, 2289 County
Park Drive, Cape Girardeau, MO 63701*

*No registration required, call 573-290-5218
for information*

All ages, families

In late winter and early spring on warm, rainy nights, some species of Missouri salamanders will be making their way to a pond to lay eggs. Learn more about these secretive amphibians. Youth and adult groups welcome.

MAPLE SUGARING

FEB. 14 • SATURDAY • 1–4 P.M.

Southeast Region, Cape Girardeau

*Conservation Nature Center, 2289 County
Park Drive, Cape Girardeau, MO 63701*

*No registration required, call 573-290-5218
for information*

All ages, families

Discover one of the forest's sweetest gifts.

Maple sugaring is rich in history and still practiced today. Learn the history, equipment, and process of making maple syrup. Youth and adult groups welcome.

BIRDS: YOUR GATEWAY TO THE NATURAL WONDERS OF THE WORLD

FEB. 20 • FRIDAY • 7–8:45 P.M.

*Southwest Region, Springfield Conservation
Nature Center, 4601 S. Nature Center Way,
Springfield, MO 65804*

Registration required, call 417-888-4237

Ages 12 and older

Professional ornithologist and two-time #1 best-selling author John C. Robinson's unique combination of breath-taking photographs, fun biology lessons, personal stories, and humor has helped hundreds of thousands of birders worldwide to improve their bird identification skills. Discover new opportunities for nature exploration.

TURKEY CALL WORKSHOP: SLATE CALLS

FEB. 21 • SATURDAY • 8 A.M.–NOON

*Ozark Region, Twin Pines Conservation
Education Center, Rt. 1 Box 1998,
Winona, MO 65588*

Registration required, call 573-325-1381

Ages 12 and older

Learn to make your own slate turkey call.



Subscribe online • mdc.mo.gov/node/9087 • Free to Missouri households



I Am Conservation

Steve Schnarr is program manager and Melanie Cheney is assistant program manager at Missouri River Relief, a nonprofit organization with a mission to connect people to the Missouri River. “We mainly do this through river cleanups, education events, and stewardship activities,” said Cheney. “Our main goal is to introduce people to the river — to physically get them out there on it — and experience it for themselves, while doing something positive for the environment.” Both Schnarr and Cheney got involved with the program by volunteering for cleanups. Their volunteer work turned into full-time jobs with the organization. “The Missouri River needs more friends and allies,” said Schnarr. “Since 2001, we’ve organized 133 river cleanups, helped other organizations on 75 cleanups, and engaged with 21,005 volunteers to remove 801 tons of junk from the Missouri River banks and floodplains in 26 different communities in seven states.” Both Schnarr and Cheney have spent most of their lives in Missouri and feel a strong connection to the Missouri River. “The Missouri River is the longest river in North America and serves as the drinking water source for more than 40 percent of Missouri citizens, said Schnarr. “When you fall in love with a place, it’s hard not to care for it,” said Cheney. “I think people naturally just gain more of a sense of appreciation and respect for the river after getting to personally experience it, and feel empowered by the physical results of cleaning it up.” —*photograph by Noppadol Paothong*